REMARKS

Reconsideration and allowance of the application are respectfully requested in light of the above amendments and the following remarks.

Claims 8 and 14 have been amended; support for amended claim 14 is provided at least in the specification on page 7, lines 23-27. Claim 16 has been added and recites features of amended claim 14 and claims 5, 7, and 8.

Claims 2-15 were rejected, under 35 USC §103(a), as being unpatentable over Staggs (US 6,711,479) in view of Stratton et al. (Landing Systems article). To the extent these rejections may be deemed applicable to the amended and new claims, the Applicants respectfully traverse based on the points set forth below.

Independent claim 14 now defines an aircraft piloting system that uses the same guidance laws for both a precision mode and a non-precision mode landing. Additionally, claim 14 recites a plurality of assisted approach modes that may be selected for generating a virtual approach axis of the non-precision mode landing.

The Office Action proposes that Stratton discloses an aircraft piloting system that uses the same guidance laws for both a precision mode and a non-precision mode landing (see Office Action page 3, lines 16-20). The Applciants respectfully disagree and note that Stratton discloses that a GNLU-930 receiver combines a GNSS-based landing system (GLS), an instrument landing system (ILS), and a VHF omni-directional radio-range (VOR) to enable the use of common procedures, interfaces, and equipment for ILS, GLS, and VOR replacement (see Stratton lines 6-8 of last paragraph). Stratton's disclosed use of common procedures between the GNLU-930 receiver and a counterpart system (i.e., any one of the ILS, GLS, and VOR) is not the same as a

system that uses the same guidance laws for both a precision mode and a non-precision mode landing.

More specifically, Stratton discloses that the ILS functionality, interfaces, and equipment within the GNLU-930 receiver are the same as in the ILS itself so that the ILS may be replaced by the GNLU-930 receiver and the legacy equipment used in the ILS may be used in the GNLU-930 receiver. Similarly, the GLS and VOR functionality, interfaces, and equipment within the GNLU-930 receiver are the same, respectively, as in the GLS and VOR so that the GNLU-930 receiver may replace one or both of the GLS and VOR and make use of their legacy equipment. Stratton in no way implies that the ILS, GLS, and VOR functionalities within the GNLU-930 receiver use the same guidance laws, as such a modification of these functionalities would preclude the GNLU-930 from having the common interfaces and equipment with the components (i.e., ILS, GLS, and VOR) being replaced by the GNLU-930 receiver, thereby negating the stated purpose for combining the three systems into the GNLU-930 receiver. Staggs is not cited by the Office Action for supplementing the teachings of Stratton in this regard.

Moreover, Staggs and Stratton do not suggest the claimed feature of a plurality of assisted approach modes that may be selected to generate a virtual approach axis of a non-precision mode landing.

Furthermore, the Office Action acknowledges that Staggs does not disclose an integrated system that implements both a precision approach mode and an assisted approach mode (see Office Action page 3, lines 11-13). To overcome this deficiency, the Office Action proposes that Stratton discloses this subject matter.

Although Stratton may disclose precision approach mode functionality (e.g., ILS system), the Office Action provides no indication as to how Stratton might disclose integrating non-precision functionality with the precision approach functionality.

A non-precision approach, as claimed by the Applicants, does not use information provided by a ground station (see the non-limiting illustration at specification page 1, lines 5-26, and page 6, lines 5-22). The illustration in the Applicants' specification expressly states that an ILS system, such as disclosed by Stratton, provides precision approach functionality (see page 1, lines 5-9).

Stratton's GLS system also seems to be a precision approach mode device. For example, WO-2007/096500 (PCT/FR2007/000258) discloses that GLS provides an instrument approach mode (see the enclosed Exhibit, which is an English translation of page 7 of WO-2007/096500). As stated in Applicants' specification, an instrument landing system is precision approach mode functionality, rather than non-precision approach mode functionality. Additionally, Stratton discloses that GLS is a GNSS-based landing system (see Stratton line 6 of last paragraph), and US-2004/0186635 discloses that a GNSS can include a space based augmentation system (SBAS) and a ground based argumentation system (GBAS) (see US-2004/0186635, paragraphj [0014]), which are not autonomous systems. Thus, Stratton does not seem to disclose integrating autonomous, non-precision approach mode functionality with precision approach mode functionality within a multi-mode receiver.

Accordingly, the Applicants submit that Staggs and Stratton, considered individually or in combination, do not render obvious the subject matter now defined by claim 14. New claim 16 similarly recites the above-mentioned features distinguishing claim 14 from the applied

references. Therefore, allowance of claims 14 and 16 and all claims dependent therefrom is warranted.

Claim 16 further recites that an inertial reference unit transmits a refined position indication directly to a multi-mode receiver. This feature helps to improve the integrity of the aircraft's position indication beyond that achievable when the indication is received indirectly through a computer, since the computer has lower integrity than the inertial reference unit (see specification page 10, lines 15-23). Additionally, this feature eliminates the processing delay of the computer in providing the position indication to the multi-mode receiver and thereby improves the guidance performance due to the more timely receipt of the position information (see page 10, line 25, through page 11, line 23). Staggs and Stratton do not disclose this feature or the benefits accruing therefrom. Therefore, allowance of claim 16 is warranted for this independent reason.

Applicants note that the Office Action does not seem to indicate how the teachings of Staggs and Stratton, taken alone or together, suggest the subject matter defined by claims 7-12. Instead, the Office Action states that Staggs and Stratton do not disclose the subject matter of these claims (see Office Action section 4, lines 2-5). Although the Office Action proposes that Staggs and Stratton suggest calculating position data from GPS data and inertial data using a processor attached to a data bus, the Office Action does not appear to indicate how this teaching is relevant to the subject matter of claims 7-12. Therefore, allowance of claims 7-12 is deemed to be warranted for this independent reason.

In view of the above, it is submitted that this application is in condition for allowance and a notice to that effect is respectfully solicited.

If any issues remain which may best be resolved through a telephone communication, the Examiner is requested to telephone the undersigned at the local Washington, D.C. telephone number listed below.

Respectfully submitted,

/James Edward Ledbetter/

Date: May 12, 2008
JEL/DWW/att

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